

GEOLOGICAL REPORT

O. A. Sutton & Kewanee Oil Company #1 Institute of Logopedics
2333' from South line and 2063' from West line of SW/4 Sec.
3-27S-1E, Sedgwick County, Kansas (Approx. NE NE SW)

ELEVATION: 1325 KB

SPUD: May 6, 1957 - Set 304' of 8-5/8" w/250 sx. cement.

FORMATION TOPS: (Schlumberger)

Kansas City	2535-1210
Base Kansas City	2700-1375
Mississippian	3009-1684
Kinderhook	3235-1910
Viola	3349-2024
Simpson	3367-2042
Arbuckle	3453-2128
Sch. TD	3484-2159
RTD	3485-2160

ZONES OF POROSITY & STAINING:

Note: No shows of commercial quantity were encountered above the Viola in this test.

Viola Section -

3349-3351 Dolomite, light grey to light tan, medium to coarse crystalline, fair odor, good show of oil and fluorescence.

DST #1 - 3337-3351 - Tool open 1 hour, strong blow, recovered 60' gas, 2190' oil, FP 30-810#, BHP 1250# in 20 min.

Core #1 - 3351-3361 - Recovered 9 1/2'.

3351-3355 - Dolomite, light grey, medium to coarse crystalline, good crystalline porosity, some vugular porosity, good show of oil and fluorescence.

3355-3356 - Dolomite, as above, fractured, some grey soft shale in fractures.

3356-3357 - Dolomite, grey to light grey, tight, coarse crystalline, streaks of fair crystalline porosity with fair show of oil and fluorescence.

3357-3358 - Ditto, vertically fractured, some good crystalline and vugular porosity, fair to good show of oil and fluorescence.

3358-3359 - Dolomite, grey to tan, fine crystalline, tight, no show.

3359-3360 - Dolomite, grey to light tan, medium crystalline, good porosity, no show, odor or fluorescence.

3360-3361 - Ditto

DST #2 - 3351-3361 - Tool open 1 hour, recovered 2760¹ fluid estimated at 90% salt water, 10% heavy oil cut salt water, FP 210-1250#, BHP 1250# in 20 minutes.

3361-3366 Dolomite, light tan, medium to fine crystalline, good porosity, no show.

Simpson Section -

3366-3392 Sandstone, grey to tan, medium to fine grained, quartzitic, fair dark stain, some dead oil in top and some thin shale stringers.

3392-3400 Sandstone, white, fine to very fine grained, porous, friable, no show.

Core #2 - 3400-3420 - Full recovery.

3400-3401 Sand, white, very fine grained, hard, tight, quartzitic, grading into fine grained porous sand, no show.

3401-3402 Sand, white to light grey, fine grained, porous, no show, glauconitic and shaley.

3402-3403 Shale, blue-green, waxy, sandy in part.

3403-3406 Shale, black to brownish-black, blocky and calcareous.

3406-3407 Shale, grey, inter-bedded with sandstone, white, fine grained, no show.

3407-3408 Ditto, glauconitic and trashy.

3408-3410 Shale, dark grey.

3410-3412 Sandstone, white, fine to medium grained, rounded and green to brown shale, trashy.

3412-3415 Sandstone, tan, fine grained, rounded, tight, vertically fractured, well saturated, good odor and fluorescence.

- 3415-3417 Sand, white to grey, fine grained, poor spotted stain, poor porosity, some inter-bedding of grey shale.
- 3417-3420 Shaley sand, white to grey, fine grained, poor porosity, trace of spotted stain

Core #3 - 3420-3443 - Full recovery.

- 3420-3430 Shale, grey to dark grey, some green and inter-bedded with sandstone and shaley sandstone, grey to light grey, fine grained, poor porosity, no show.
- 3430-3434 Sand and shaley sand, bleeding in part, fine grained, poor porosity, pyritic, spotted and streaked staining.
- 3434-3435 Sandstone, light grey, very fine grained, slightly shaley, vertically fractured, tight, fair to good stain.
- 3435-3436 Shaley sand, light greenish grey, fine grained, poor porosity, fair spotted stain.
- 3436-3437 Shale, green, waxy, some sandstone inter-bedded with good staining.
- 3437-3438 Ditto
- 3438-3439 Sandstone, white, fine grained, poor porosity, no show, inter-bedded with shale, green.
- 3439-3440 Ditto
- 3440-3441 Ditto
- 3441-3442 Sand, grey, very fine grained, tight, quartzitic, fractured, bleeding, fair to good show of oil.
- 3442-3443 Shale, green, inter-bedded with sand, grey, very fine grained, quartzitic, tight, no show.

DST #3 (straddle) 3411-3417 - Tool open 30 minutes, no blow, recovered 5' mud, BHP 1160# in 20 minutes.

3443-3449 Sand, tan, white, fine grained, friable, fair to good porosity, fair show of oil in part.

DST #4 - 3445-3449 - Tool open 30 minutes, no blow, recovered 3' mud,
BHP 1465# in 20 minutes.

3449-3453 Sand and shaley sand as above.

Arbuckle Section -

3453-3456 Dolomite, tan, fine to medium crystalline, no show, odor or
fluorescence, some chert, grey to light grey, oolitic.

3456-3485 Dolomite, tan to light grey, medium to fine crystalline, fair
porosity, no show, odor or fluorescence.

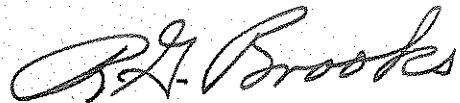
STRUCTURAL POSITION:

In relation to the top of the Viola, the #1 Institute of Logopedics was 20' lower than
the #1 Suddarth; 24' lower than the #1 Strickland and 1' lower than the #1 Slothower.

RECOMMENDATION:

It was recommended that 5½" casing be set at 3484', 1' off bottom, with 75 sacks
of common cement plus 225 gal. of Latex cement blended adequately to cover the
Viola section. Results from drill stem tests in the Simpson indicate the Simpson
to be extremely tight and if an attempt is made to test these sand stringers: 3412-
3416, 3429-3434, 3446-3451, they will undoubtedly require a high pressure fracture
treatment. The water zone in the Viola appears to be at 3358-2033 which indicates
a net pay section of 7 to 8'.

Consideration should be given the possibility of first perforating the Viola water
zone and squeezing before attempting to perforate the productive zone in the Viola.



R. G. Brooks,
Geologist

RGB/hs
5/20/57

Operator - O. A. Sutton
 Well - #1 Institute of Logopedics
 Location - App. NE NE SW Sec. 3-27-1E
 Sedgwick County, Kansas
 Commenced - 5-5-57
 Completed - 5-20-57
 Casing - 8-5/8" at 304' with 250 sacks cement
 5-1/2" at 3484' with 75 sacks cement
 Elevation - 1325 Rotary Bushing

DRILLERS' LOG

0 - 25	Surface soil	2726 - 2845	Lime
25 - 45	Sand	2845 - 2930	Lime
45 - 85	Shale and shells	2930 - 3008	Lime and shale
85 - 105	Sand	3008 - 3023	Sand
105 - 175	Lime and shale	3023 - 3050	Shale and sand
175 - 277	Lime	3050 - 3108	Chert
277 - 304	Lime	3108 - 3150	Lime
304 - 475	Lime and shale	3150 - 3185	Lime
475 - 670	Lime and shale	3185 - 3210	Lime
670 - 783	Lime and shale	3210 - 3231	Shale and sand
783 - 1080	Lime and shale	3231 - 3277	Lime and shale
1080 - 1325	Lime and shale	3277 - 3349	Shale and Lime
1325 - 1522	Lime and shale	3349 - 3351	Lime
1522 - 1693	Sandy shale and lime	3351 - 3361	Coring
1693 - 1845	Shale and lime	3361 - 3383	Dolomite and sand
1845 - 1962	Shale and lime	3383 - 3400	Sand
1962 - 2082	Lime and shale	3400 - 3420	Coring
2082 - 2180	Shale and lime	3420 - 3443	Coring
2180 - 2412	Shale and lime	3443 - 3449	Sand
2412 - 2546	Shale	3449 - 3453	Sand and shale
2546 - 2580	Lime	3453 - 3485	Dolomite
2580 - 2660	Lime	3485 -	Rotary Total Depth
2660 - 2726	Lime		

STATE OF KANSAS)
) ss
 COUNTY OF SEDGWICK)

I, the undersigned, being duly sworn on oath, state that the above Drillers' Log is true and correct to the best of my knowledge and belief and according to the records of this office.

RENPRO DRILLING CO.

By Henry D. Finlan

Subscribed and sworn to before me this 27th day of May, 1957.

My commission expires May 4, 1959.

Joanna Leslie
 Notary Public